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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,938	02/12/2002	Jung-You Feng	FENG3003/EM	3685

23364 7590 01/20/2006

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ALEXANDRIA, VA 22314

EXAMINER
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NGUYEN, HANH N

ART UNIT	PAPER NUMBER
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2668

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/072,938

Applicant(s)

FENG, JUNG-YOU

Examiner

Hanh Nguyen

Art Unit

2668

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the register" in lines 12 and 17. There is insufficient antecedent basis for this limitation in the claim.

In claim 1, is "the register 34" and "the register" on line 17 referred to one register ? If so, Applicant is required to correct the claim language.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, it is not clearly stated what is meant by "a client port in time time slot n to 0"

Claims 7-11 are rejected because they depend on claim 6 respectively.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yadav et al. (US Pat. 6868062 B1) in view of Thompson (US Pat. 6,681,059 B1).

In claim 1, Yadav et al. discloses, in fig.3, a bandwidth control device (traffic pattern collector 20) for a network switch ( server 10) having a plurality of client ports ( port 11a) and at least one uplink port ( ports 11b) to switch packets among the client ports and the uplink port ( traffic collector 20 controls the packets switching between each client ports 11a and 11b); having a predefined bandwidth threshold, (each port 11 has a limited transmission capacity). See 1, lines 57-67 and col.2, lines 28-35. Yadav et al. discloses the traffic pattern controller (TPC) 20 monitoring packet transmissions including average transmission rate ( average traffic rate) and packet size X ( traffic rate representing length of transmitted packet) that is transmitted from server 10 over port 11 per time interval T ( fig.2A). See col.2, lines 30-45). A comparator ( reporting module 24) compares the average traffic rate of the client port generated before time slot n+1 (by using a bucket model showed in col.2, lines 47-65; reporting module 24 compares an actual size X of transmitted packet) and a bandwidth threshold of the client port ( threshold values of parameters; see col.3, lines 15-20; or number of tokens in the bucket, see col.2, lines 60-65), and if the average traffic rate is smaller than the bandwidth threshold of client port, the client port being allowed to transmit packet (A data packet of size X can be successfully sent if the number of tokens in the bucket model exceeds the size of the data packet to be sent (see col.2, lines 45-65); Yadav et al. further discloses a memory ( register) storing instructions for causing server 10 to implement operations.

However, Yadav et al. fails to disclose a first multiplier for multiplying a traffic rate of a client port in a time slot n by a first multiplicator  $g$  ( $g < 1$ ), a second multiplier for multiplying an

average traffic rate of the client port actually generated before time slot n and stored in the register 34 by a second multiplier 1-g; an adder for adding outputs from the first multiplier and the second multiplier, the register provided for temporarily storing the average traffic rate of the client port generated before time slot n-1.

Thompson discloses, in fig.5, a first multiplier (multiplier 46) for multiplying a traffic rate of a client port ( 8 bit data word) in a time slot n by a first multiplier g ( $g < 1$ ) ( coefficient from controller 51, see col.6, lines 5-12), a second multiplier ( multiplier 44) for multiplying an average traffic rate of ( 8 bit data word) the client port actually generated before time slot n and stored in the register 34 (shift register 40) by a second multiplier 1-g; an adder ( adder 54) for adding outputs from the first multiplier ( 46) and the second multiplier ( 44), the register ( 54) provided for temporarily storing the average traffic rate of the client port generated before time slot n-1. See col.6, lines 1-30.

Therefore, it would have been obvious to construct the shift register of Thompson including multiple multipliers in the traffic pattern collector to store the multiplied traffic rate. The motivation being determining whether the the client port is allowed to transmit packet.

In claims 2, Yadav et al. does not disclose that the register is a flip flop. Thompson disclose that the shift register 38 being flip flop ( see fig.5). Therefore, it would have been obvious to use the flip flop in Yadav to temporarily store transmitted packets.

In claim 3, neither Yadav nor Thompson disclose after being compared by the comparator, if the average traffic rate before slot n+1 is larger than the bandwidth threshold of the client port, the packet incapable of being transmitted is stored in a packet memory. Storing packets incapable of being transmitted in a packet memory is well-known in the art when the

average transmitted packet rate is larger than the threshold bandwidth. Therefore, it would have been obvious to one ordinary skilled in the art to store packets incapable of being transmitted in the server 10 of Yadav et al. to control the packets transmissions and prevent the packets from being congested.

In claims 4 and 5, Yadav et al. disclose that the ports 11 may transmits packets at limited capacity; col. 1, lines 60-67). But Yadav et al. does not disclose the client 'sport and the uplink port are connected to 10Base-T or a 100Base-T Ethernet. Having ports with transmission speed at eith 10Base-T or 100Base-T is well-known in the art. Therefore, it would have been obvious configure the client port and uplink port at any speed including 10Base-T and 100Base-T.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

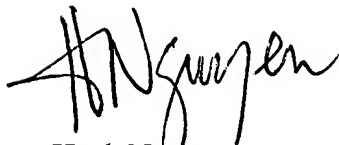
Horspool et al. (US Pat. 6,538,994 B1) ;

Aweya et al. (US Pat. 6,788,697 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan, can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hanh Nguyen  
Primary examiner